

WHAT IS CLAIMED IS:

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1. A kit comprising, in a pharmaceutically acceptable form, biologically effective amounts of at least a first antibody, or an antigen-binding fragment thereof, that binds to an aminophospholipid and:
- 10 (a) a detectably-labeled antibody, or antigen-binding fragment thereof, that binds to an aminophospholipid; or
- (b) at least a second anti-cancer agent.
2. The kit of claim 1, wherein said kit comprises at least a first antibody, or antigen-binding fragment thereof, binds to phosphatidylethanolamine.
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3. The kit of claim 1, wherein said kit comprises at least a first antibody, or antigen-binding fragment thereof, binds to phosphatidylserine.
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4. The kit of claim 1, wherein said kit comprises at least a first IgG or IgM antibody that binds to an aminophospholipid.
- 25 5. The kit of claim 1, wherein said kit comprises at least a first scFv, Fv, Fab', Fab or F(ab')₂ antigen-binding fragment of an antibody that binds to an aminophospholipid.
- 30 6. The kit of claim 1, wherein said kit comprises at least a first monoclonal antibody, or antigen-binding fragment thereof, that binds to an aminophospholipid.

7. The kit of claim 1, wherein said kit comprises at least a first recombinant antibody, or antigen-binding fragment thereof, that binds to an aminophospholipid.

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8. The kit of claim 1, wherein said kit comprises at least a first human, humanized or part-human chimeric antibody, or antigen-binding fragment thereof, that binds to an aminophospholipid.

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9. The kit of claim 8, wherein said kit comprises at least a first antibody comprising a mouse antibody variable region that binds to an aminophospholipid operatively attached to a human antibody framework or constant region.

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10. The kit of claim 8, wherein said kit comprises at least a first recombinant, human antibody, or antigen-binding fragment thereof, that binds to an aminophospholipid.

11. The kit of claim 1, wherein said kit comprises at least a first dimer, trimer or multimer of an antibody, or antigen-binding fragment thereof, that binds to an aminophospholipid.

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12. The kit of claim 1, wherein said kit comprises at least a first and second antibody, or antigen-binding fragments thereof, that bind to an aminophospholipid.

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13. The kit of claim 12, wherein said kit comprises at least a first antibody, or antigen-binding fragment thereof, that binds to phosphatidylethanolamine and at least a second antibody, or antigen-binding fragment thereof, that binds to phosphatidylserine.

14. The kit of claim 1, wherein said kit comprises at least a first pharmaceutically acceptable formulation suitable for intravenous administration.

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15. The kit of claim 1, wherein said kit comprises, in distinct pharmaceutical compositions, said at least a first antibody, or antigen-binding fragment thereof, and said detectably-labeled antibody, or antigen-binding fragment thereof.

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16. The kit of claim 15, wherein said detectably-labeled antibody, or antigen-binding fragment thereof, comprises the X-ray detectable compound bismuth (III), gold (III), lanthanum (III) or lead (II).

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17. The kit of claim 15, wherein said detectably-labeled antibody, or antigen-binding fragment thereof, comprises the detectable radioactive ion copper⁶⁷, gallium⁶⁷, gallium⁶⁸, indium¹¹¹, indium¹¹³, iodine¹²³, iodine¹²⁵, iodine¹³¹, mercury¹⁹⁷, mercury²⁰³, rhenium¹⁸⁶, rhenium¹⁸⁸, rubidium⁹⁷, rubidium¹⁰³, technetium^{99m} or yttrium⁹⁰.

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18. The kit of claim 15, wherein said detectably-labeled antibody, or antigen-binding fragment thereof, comprises the detectable nuclear magnetic spin-resonance isotope cobalt (II), copper (II), chromium (III), dysprosium (III), erbium (III), gadolinium (III), holmium (III), iron (II), iron (III), manganese (II), neodymium (III), nickel (II), samarium (III), terbium (III), vanadium (II) or ytterbium (III).

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19. The kit of claim 1, wherein said kit comprises said at least a first antibody, or antigen-binding fragment thereof, and said at least a second anti-cancer agent.

20. The kit of claim 19, wherein said at least a first antibody, or antigen-binding fragment thereof, and said at least a second anti-cancer agent are comprised within a single pharmaceutical composition.

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21. The kit of claim 19, wherein said at least a first antibody, or antigen-binding fragment thereof, and said at least a second anti-cancer agent are comprised within distinct pharmaceutical compositions.

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22. The kit of claim 19, wherein said at least a second anti-cancer agent is a chemotherapeutic agent, radiotherapeutic agent, anti-angiogenic agent or apoptosis-inducing agent.

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23. The kit of claim 19, wherein said at least a second anti-cancer agent is an antibody-therapeutic agent construct comprising a targeting antibody, or antigen-binding fragment thereof, that binds to a surface-expressed, surface-accessible or surface-localized component of a tumor cell, tumor stroma or tumor vasculature; wherein said targeting antibody or fragment thereof is operatively linked to a therapeutic agent.

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24. The kit of claim 23, wherein said targeting antibody, or antigen-binding fragment thereof, binds to a surface-expressed, surface-accessible, surface-localized, cytokine-inducible or coagulant-inducible component of intratumoral blood vessels of a vascularized tumor.

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25. The kit of claim 24, wherein said targeting antibody, or antigen-binding fragment thereof, binds to a surface-expressed component of intratumoral vasculature selected from the group consisting of an aminophospholipid, endoglin, a TGF β receptor, E-selectin, P-selectin, VCAM-1,

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ICAM-1, PSMA, a VEGF/VPF receptor, an FGF receptor, a TIE, $\alpha_v\beta_3$ integrin, pleiotropin, endosialin and an MHC Class II protein.

5 26. The kit of claim 24, wherein said targeting antibody, or antigen-binding fragment thereof, binds to a surface-localized component of intratumoral vasculature selected from the group consisting of VEGF/VPF, FGF, TGF β , a ligand that binds to a TIE, a tumor-associated fibronectin isoform, scatter factor/hepatocyte growth factor (HGF), platelet factor 4 (PF4), PDGF and TIMP.

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27. The kit of claim 23, wherein said targeting antibody, or antigen-binding fragment thereof, is operatively linked to a cytotoxic agent.

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29. The kit of claim 23, wherein said targeting antibody, or antigen-binding fragment thereof, is operatively linked to deglycosylated ricin A chain, Tissue Factor, truncated Tissue Factor or to an antibody, or antigen-binding fragment thereof, that binds to Tissue Factor or truncated Tissue Factor.

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30. The kit of claim 1, wherein said kit comprises biologically effective amounts of:

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- (a) a detectably-labeled antibody, or antigen-binding fragment thereof, that binds to an aminophospholipid;

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- (b) at least a first unconjugated antibody, or an antigen-binding fragment thereof, that binds to an aminophospholipid; and
- (c) at least a second anti-cancer agent.

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- An imaging and treatment kit, comprising:
- (a) at least a first pharmaceutical composition comprising a diagnostically effective amount of a detectably-labeled antibody, or antigen-binding fragment thereof, that binds to an aminophospholipid; and
- (b) at least a second pharmaceutical composition comprising a therapeutically effective amount of at least one unconjugated antibody, or an antigen-binding fragment thereof, that binds to an aminophospholipid.

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32. The kit of claim 31, wherein the antibody or antigen-binding fragment of said detectably-labeled antibody and said unconjugated antibody or an antigen-binding fragment thereof are obtained from the same antibody preparation or antibody-producing hybridoma.

33. The kit of claim 31, wherein said kit further comprises a therapeutically effective amount of at least a second anti-cancer agent.

34. A therapeutic kit comprising, in at least a first suitable container, a combined pharmaceutically effective amount of at least a first unconjugated antibody, or antigen-binding fragment thereof, that binds to an aminophospholipid; and at least a second anti-cancer agent.

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35. The kit of claim 34, wherein said at least a second anti-cancer agent is an anti-angiogenic agent, apoptosis-inducing agent or a vascular targeting agent.

5 36. The kit of claim 34, wherein said kit further comprises a diagnostically effective amount of a detectably-labeled antibody, or antigen-binding fragment thereof, that binds to an aminophospholipid.

10 37. A medicinal cocktail comprising, in a pharmaceutically acceptable form, a combined effective amount of at least a first anti-cancer agent and at least a first unconjugated antibody, or an antigen-binding fragment thereof, that binds to an aminophospholipid.

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- 15 38. In combination, biologically effective amounts of:
- (a) a detectably-labeled antibody, or antigen-binding fragment thereof, that binds to an aminophospholipid;
- 20 (b) at least a first unconjugated antibody, or an antigen-binding fragment thereof, that binds to an aminophospholipid; and
- (c) at least a second anti-cancer agent.
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